

Fig. 1

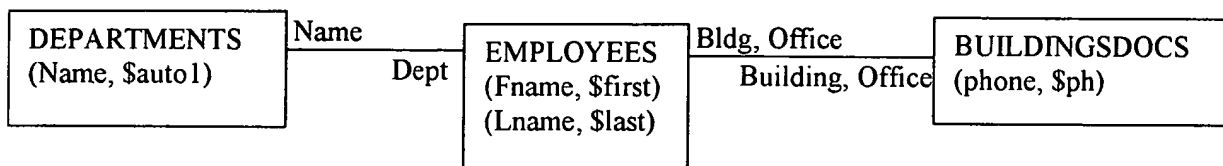


Fig 2

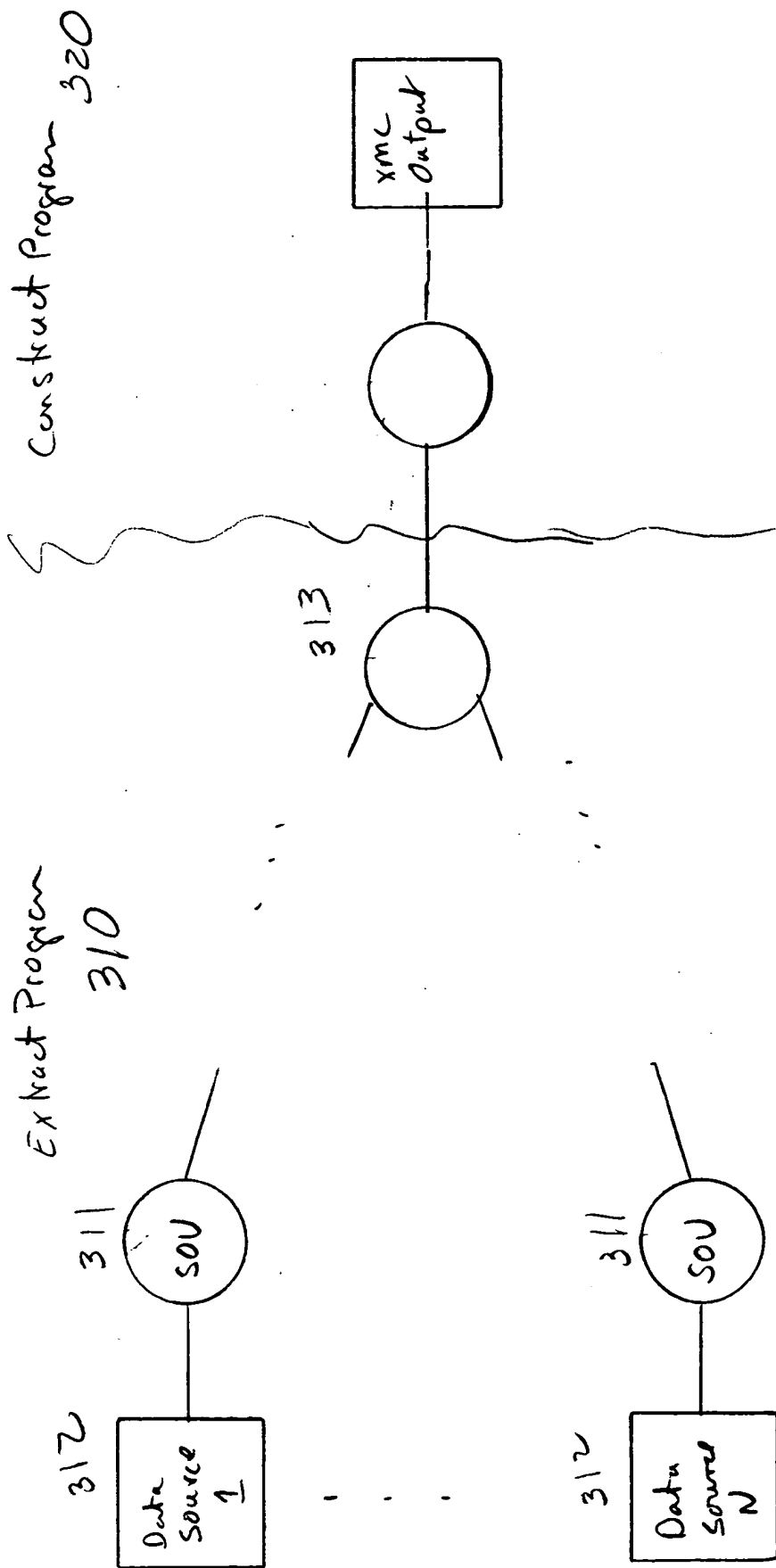


Fig 3

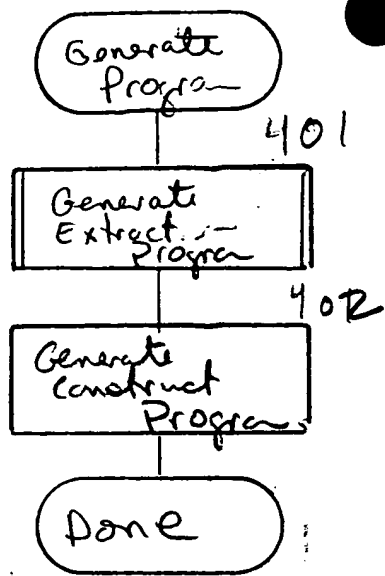


Fig 4

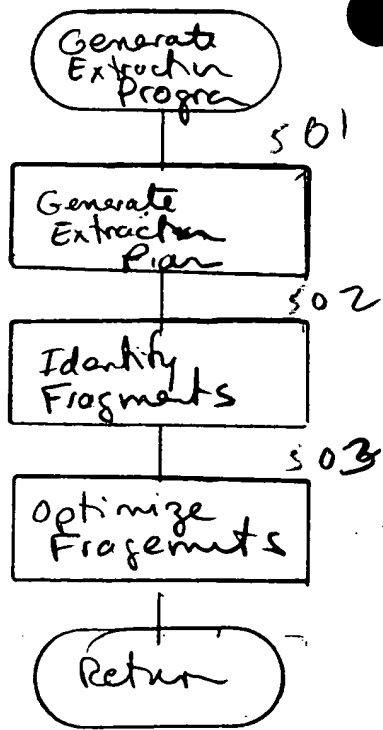


Fig 5

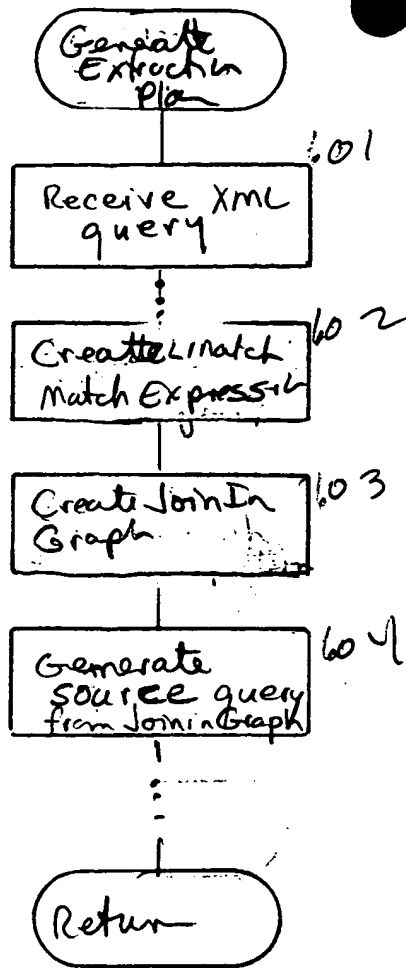


Fig 6

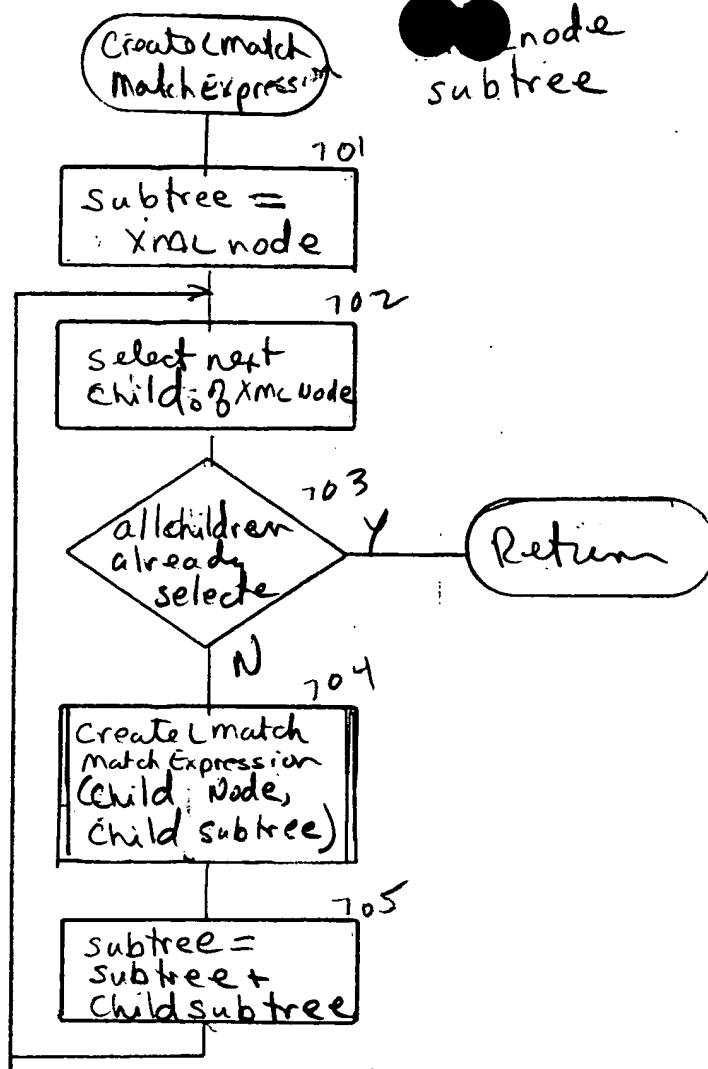


Fig 7

Create
Join In Graph

match tree,
Join In Graph

Generate JIG
(match tree,
Join In Graph)

801

Merge JIG
nodes

802

Adjoin JIG
Nodes

803

Return

Fig 8

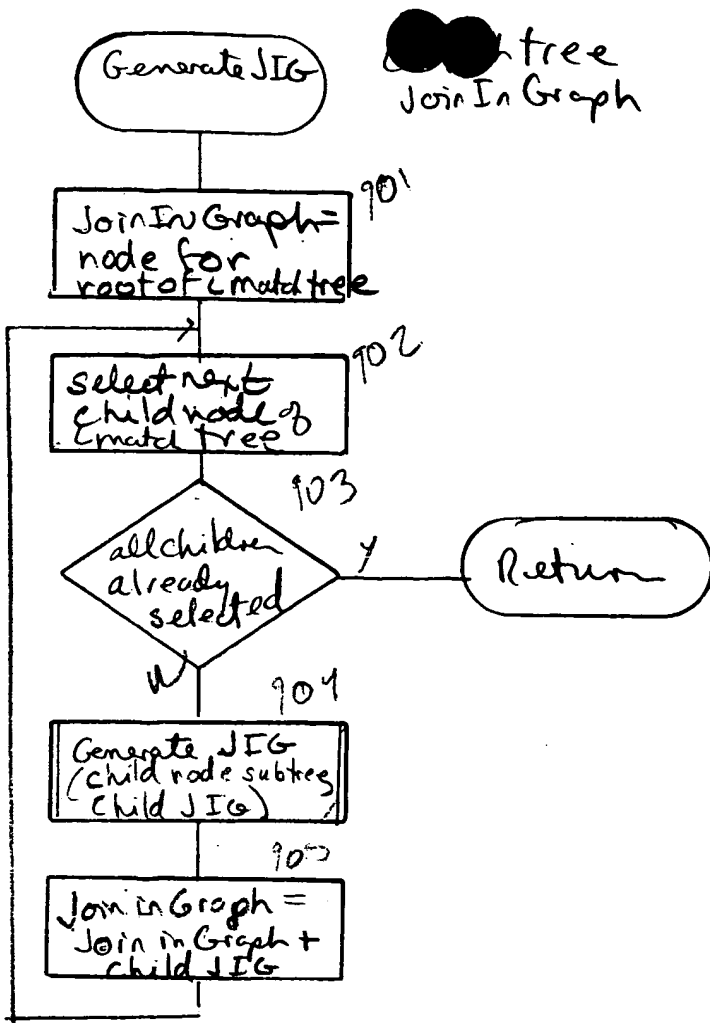


Fig 9

A	X	C	F
A	X	C	G
B	X	D	E
B	X	E	F

Table 1.1

C	X	X	X	A
C	X	X	X	I
D	X	X	X	H
E	X	X	X	J
E	X	X	X	J

Table 2.1

H	X	X	X	X
I	X	X	X	X
J	X	X	X	X

Table 3.1

F	X	X	X	X
G	X	X	X	X
G	X	X	X	X

Table 2.2

Fig 10

c1		c2		c3		c4												c1c	
1.1.1	1.1.2	1.1.3	1.1.4	2.1.1	2.1.2	2.1.3	2.1.4	3.1.1	3.1.2	3.1.3	3.1.4	2.2.1	2.2.2	2.2.3	2.2.3				
A	X	C	F																
2 A	X	C	F	C	X	X	H												
A	X	C	F	C	X	X	H	H	X	X	X								
3 A	X	C	F	C	X	X	I												
A	X	C	F	C	X	X	I	I	X	X	X								
A	X	C	F									F	X	X	X				
A	X	C	G																
A	X	C	G	C	X	X	H												
A	X	C	G	C	X	X	H	H	X	X	X								
A	X	C	G	C	X	X	I												
A	X	C	G	C	X	X	I	I	X	X	X								
A	X	C	G									G	X	X	X				
A	X	C	G									G	X	X	X				
A	X	C	G																
A	X	C	F	D	X	X	H												
A	X	D	F	D	X	X	H	H	X	X	X								
A	X	D	F	D	X	X	H	H	X	X	X								
A	X	D	F																
A	X	D	F									F	X	X	X				
B	X	E	F																
B	X	E	F	E	X	X	J												
B	X	E	F	E	X	X	J	J	X	X	X								
B	X	E	F	E	X	Y	J												
B	X	E	F	E	X	Y	J	J	X	X	X								
B	X	E	F																
B	X	E	F									F	X	X	X				

FIGURE 11

1

Select 1.1:1 as c1
 1.1:2 as c2
 1.1:3 as c3
 1.1:4 as c4
 null as c5
 ...
 null as c16

From Table 1.1
Where *

2

Select 1.1:1 as c1
 1.1:2 as c2
 1.1:3 as c3
 1.1:4 as c4
 2.1:1 as c5
 2.1:2 as c6
 2.1:3 as c7
 2.1:4 as c8
 null as c9
 ...
 null as c16

From Table 1.1, Table 2.1
Where 1.1:3=2.1:1

3

Select 1.1:1 as c1
 1.1:2 as c2
 1.1:3 as c3
 1.1:4 as c4
 2.1:1 as c5
 2.1:2 as c6
 2.1:3 as c7
 2.1:4 as c8
 3.1:1 as c9
 3.1:2 as c10
 3.1:3 as c11
 3.1:4 as c12
 null as c13
 ...
 null as c16

From Table 1.1, Table 2.1, Table 3.1

Fig 12

Where $1.1:3=2.1:1$ and $2.1:4 = 3.1:1$

Select

1.1:1 as c1

1.1:2 as c2

1.1:3 as c3

1.1:4 as c4

null as c5

...

null as c12

2.2:1 as c13

2.2:2 as c14

2.2:3 as c15

2.2:4 as c16

From Table 1.1, Table 2.2

Where $1.1:4=2.2:1$

4

Fig 12(cont)

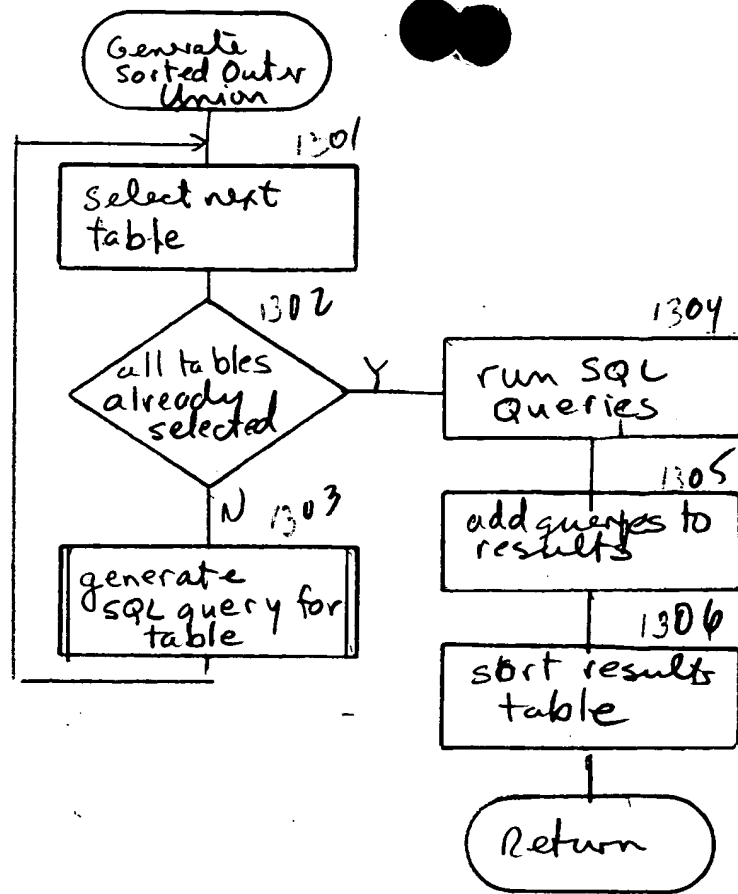


Fig 13

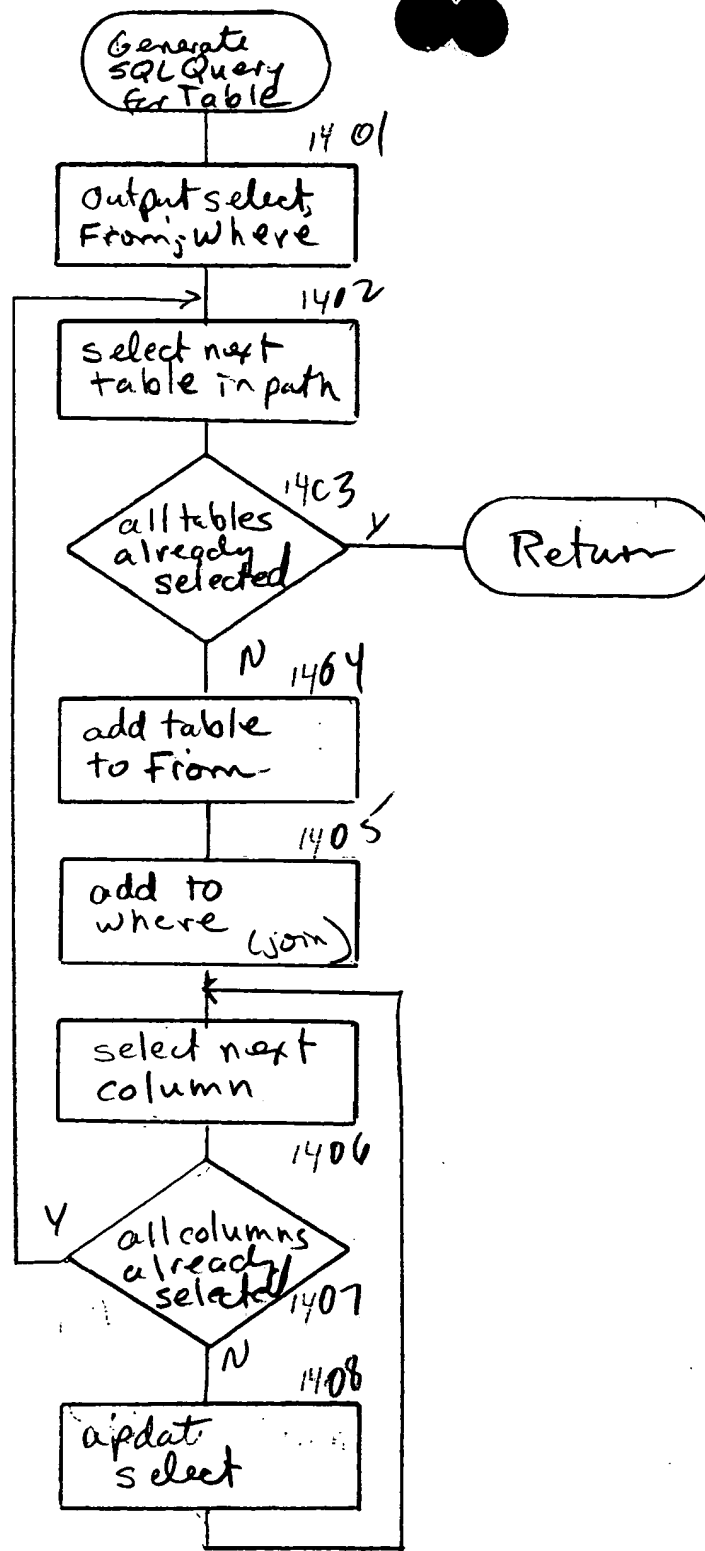


Fig 14

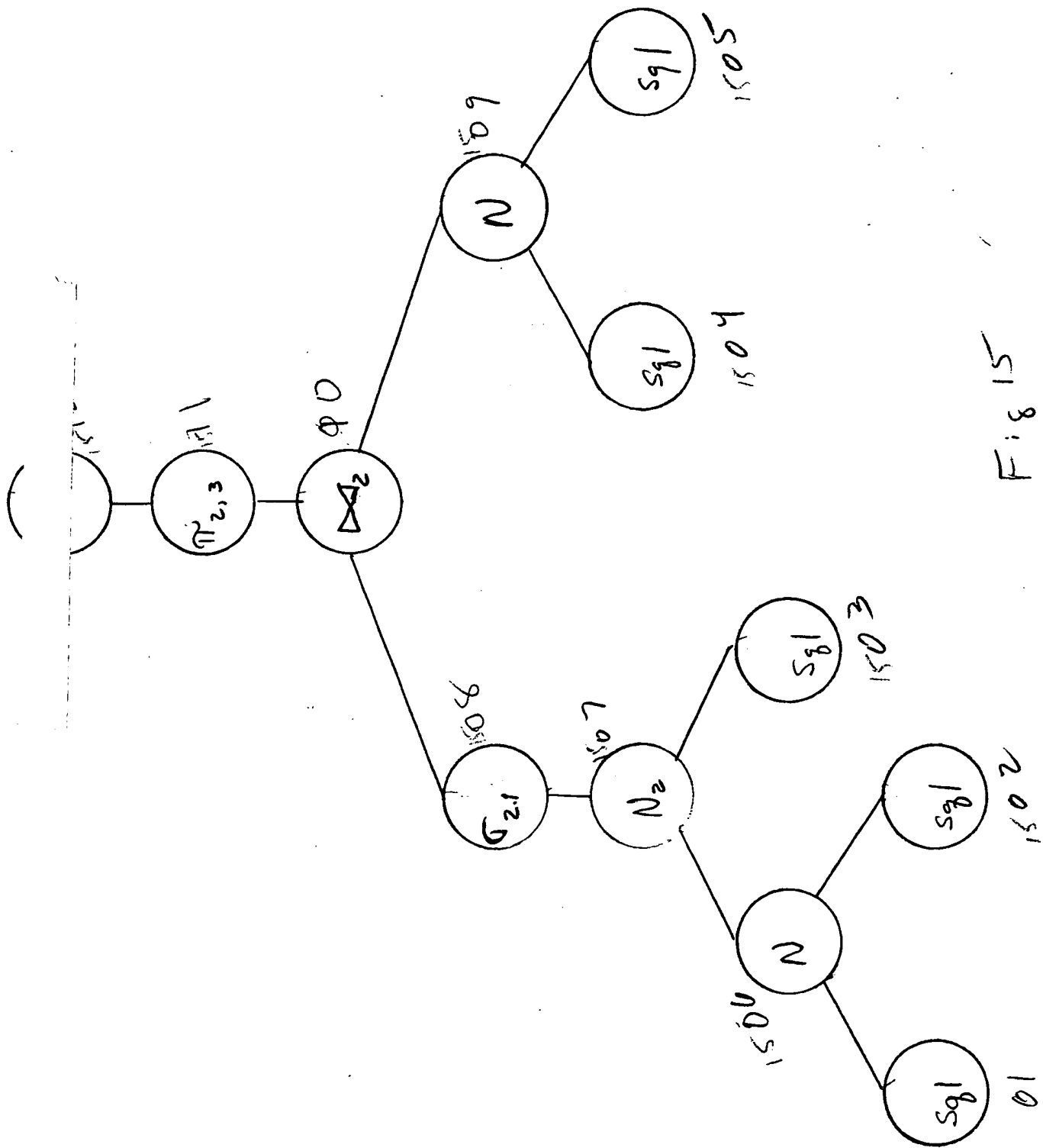


Fig 15

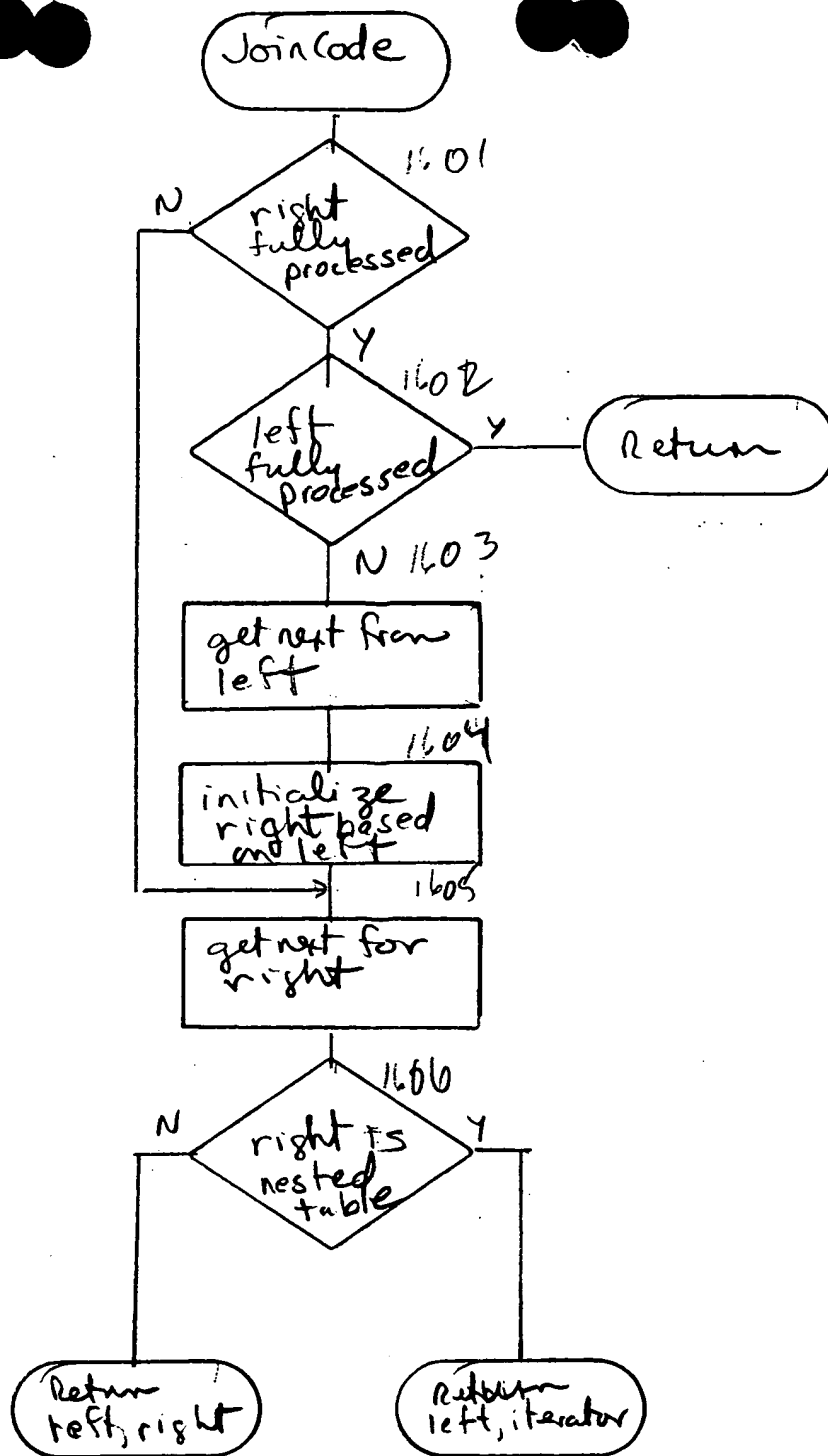


Fig 16

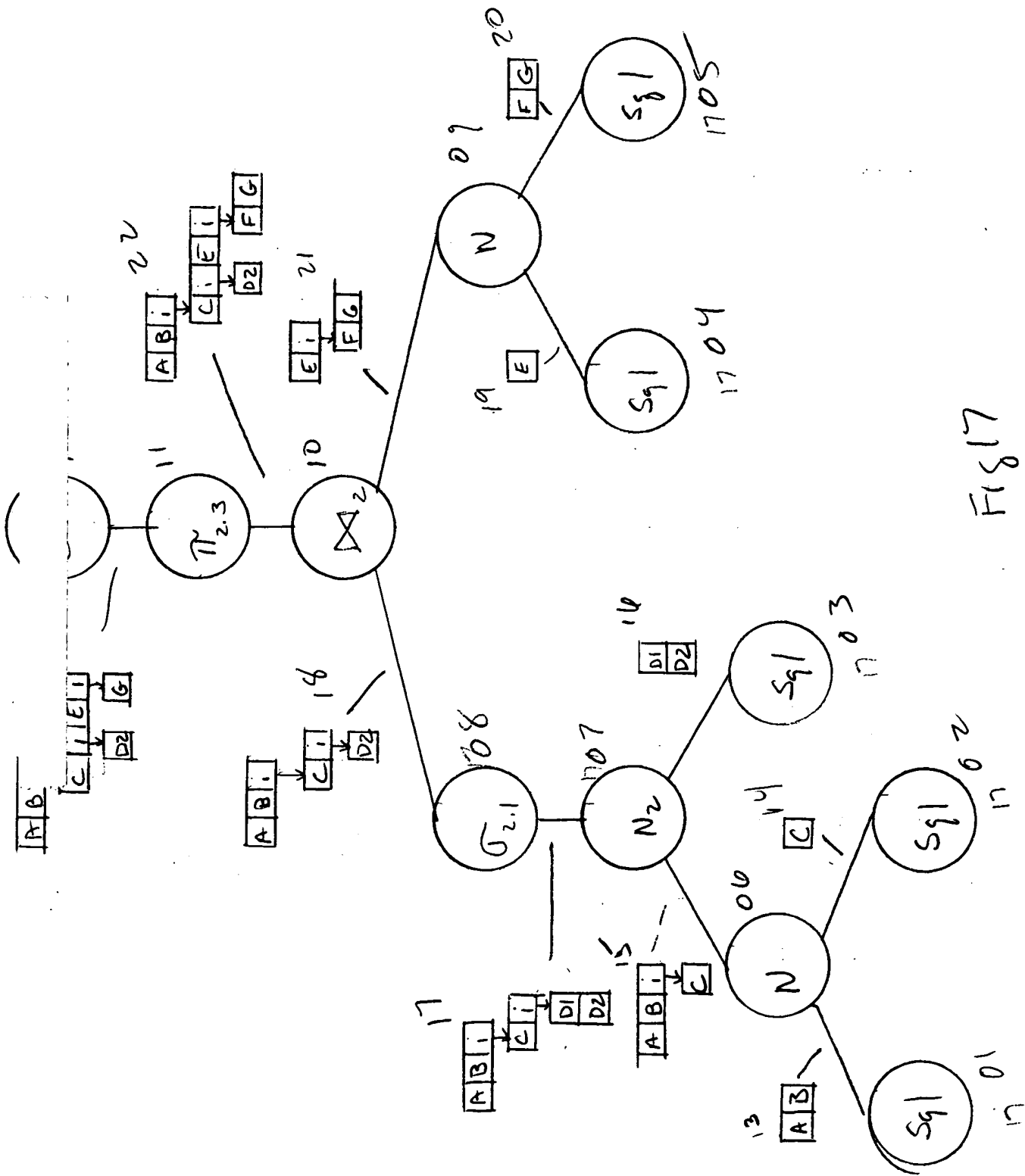


Fig 17

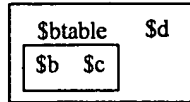


Fig. 18

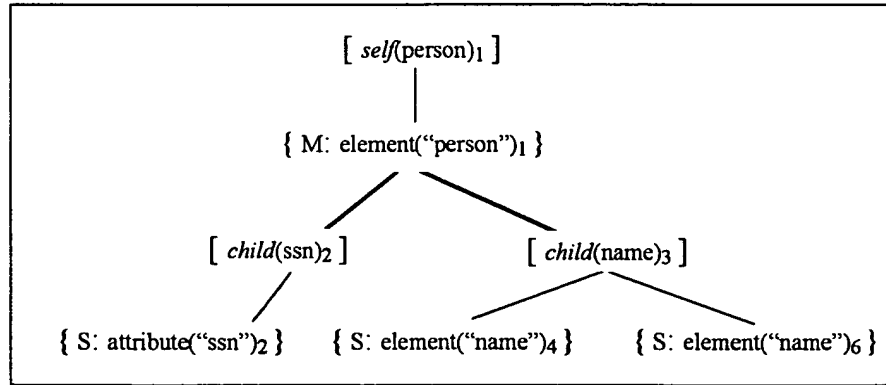


Fig. 19

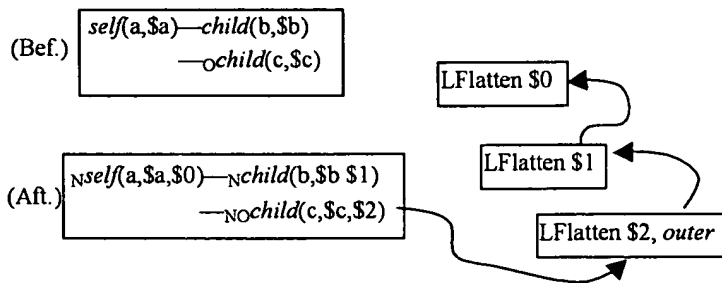
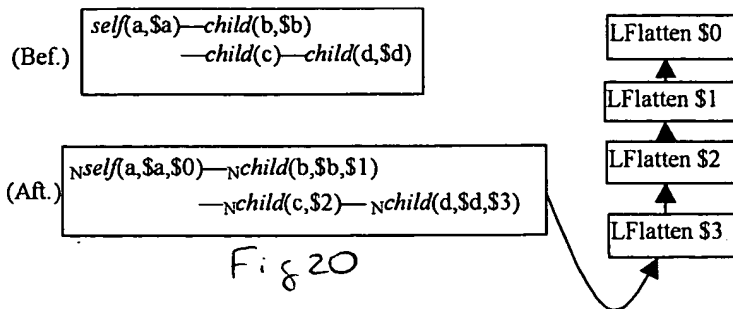


Fig. 21

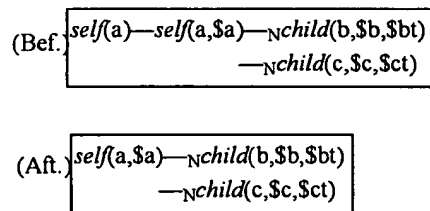


Fig. 22

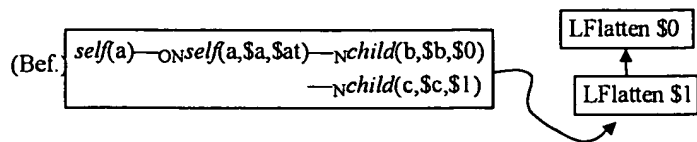


Fig. 23

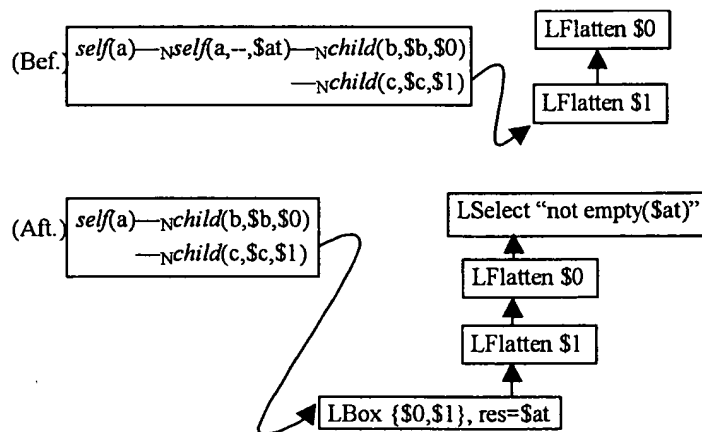
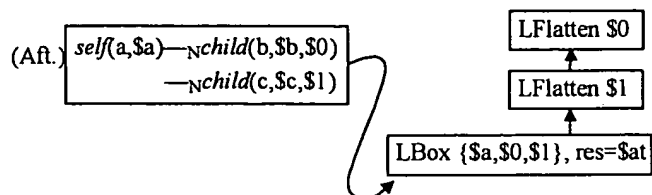


Fig. 24

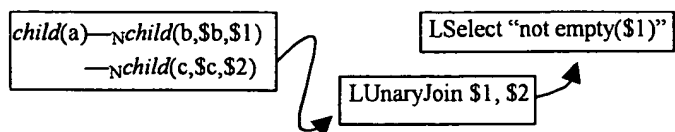


Fig. 25